Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Claims 1-113 are canceled without prejudice or disclaimer.

Claims 114-127 are new.

Listing of Claims:

1. - 113. Canceled

114. (New) A composition comprising:

a recombinant polypeptide comprising an organelle localization signal operably linked to a protein transduction domain, wherein the recombinant polypeptide is operably linked to a polynucleotide.

- 115. (New) The composition of claim 114, wherein the composition is a viral vector.
- 116. (New) A composition according to claim 114, wherein the composition is a recombinant bacteriophage.
- 117. (New) A composition according to claim 114, wherein the organelle localization signal operably linked to the protein transduction domain is expressed on an exterior surface of a vector.
- 118. (New) A composition according to claim 114, wherein the compositions is a virus particle.
- 119. (New) A composition according to claim 114, wherein the polynucleotide encodes a mitochondrial protein, a chloroplast protein, heterologous polypeptide, siRNA or antisense nucleic acid specific for mitochondrial or chloroplast mRNA.

- 120. (New) A method for treating a mitochondrial disease comprising contacting at least one cell of a host having or suspected of having a mitochondrial disease with a vector comprising at least one protein transduction domain on a surface of the vector, at least one mitochondrial targeting signal on a surface of the vector, and a polynucleotide encoding a functional mitochondrial polypeptide, wherein the functional mitochondrial polypeptide is expressed in at least one mitochondrion of the cell.
- 121. (New) A cell comprising a composition according to claim 114.
- 122. (New) A method for producing a mtDNA depleted cell comprising: contacting the cell with at least one siRNA directed to POLy.
- 123. (New) The method of claim 122, wherein the siRNA is selected from the siRNAs listed in TABLE 3 or a sequence having 80-100% homology to the siRNAs listed in TABLE 3 or SEQ IDNOs. 195574.
- 124. (New) The method of claim 123, wherein a target sequence of POLγ RNA inhibition is selected from the POLγ target sequences in TABLE 3.
- 125. (New) A kit for transfecting organelles, the kit comprising: a polynucleotide encoding an organelle localization signal operably linked to a bacteriophage lambda surface polypeptide; and bacteriophage lambda packaging components for preparing a recombinant lambda vector.
- 126. (New) A method for transfecting an organelle, the method comprising the step of introducing a recombinant viral vector comprising a nucleic acid to be expressed in the organelle into the cytosol of a cell, wherein the recombinant viral vector displays an organelle localization signal on a surface of the vector for directing the vector to an organelle to be transfected.
- 127. (New) A method for producing a cell lacking mitochondrial DNA comprising:

contacting the cell with at least one siRNA directed to a gene involved in sustaining or maintaining mtDNA or mtDNA stability.